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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/619,609

Applicant(s)

PLOTZ, KURT

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16,32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16,32 and 33 is/are rejected.
- 7) ☒ Claim(s) 12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/619,529.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/16/03</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Claim Objections***

1. Claim 12 is objected to because of the following informalities: the claim includes the term "shrunk" in parenthesis after "thermally fixed". It is noted that in the specification Applicant indicates that the synthetic fiber mat is thermally fixed prior to bonding with the fiberglass mat so that the thermal shrinking of the nonwoven upon formation into a carrier laminate is removed (Page 6, lines 1-7). The Examiner understands from the specification that the material is shrunk as a result of a thermal fixation process, but notes that the claim will be more clear and appropriate if Applicant modifies the language of the claim and removes the term "shrunk" from the parenthesis and positively recites it in the claim or deletes it. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 9-10, 13-16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over HIERS (US 4,522,876) in view of NIEMINEN et al. (US 5,458,960).

HIERS discloses an integral textile composite fabric having at least one organic textile fiber layer of needled textile organic fibers and at least one glass fiber layer. (Column 1, lines 6-8) The reference teaches that the organic fibers from the organic fiber layer 2 are needled in and disposed substantially through the glass fiber layer 6 so that the layers are bound together at the respective inner surfaces 4 and 8. (Column 5, lines 16-20 and Figure 1) HIERS, further teaches that the organic fiber

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layer and the glass fiber layer are needled from laid fibers. With regards to the claimed fiberglass containing mat consolidated with a binder, it is noted that the reference teaches that the needled layers are laid layers and are to be distinguished from previously substantially consolidated (non-laid) layers, e.g. layers which may have been substantially consolidated by use of adhesives, thermal bonding and the like. This does not mean, however, that there can be no previous consolidation of the laid layers. For example, commercially available glass fiber batts may have a small amount of resin binder therein in order to provide sufficient strength for handling purposes. (Column 5, lines 40-50) It is the Examiner's interpretation of the reference's teachings that using a resin binder in glass fiber batt to provide sufficient strength during handling reads on the presently claimed fiberglass containing mat consolidated with a binder.

The reference teaches that the synthetic organic textile fibers may be thermoplastic fibers, polyester fibers, acrylic fibers, olefin fibers, among others. (Refer to Column 6, lines 51-62) The fiber length of the organic fiber may be from 1 to 4 inches. (Column 7, lines 3-4) With regards to claim 3 that claims that the organic fibers are polypropylene fibers, it is the Examiner's position that the olefin fibers disclosed by HIRS include polypropylene since an olefin fiber is a synthetic long-chain polymer fiber composed of at least 85% by weight of ethylene, propylene, or other crystalline polyolefins, (as defined in Hawley's Condensed Chemical Dictionary, Twelfth Edition, p.852). With regards to claim 5, it is noted that a manufactured staple fiber includes fibers with lengths from 8 inches down to about 1 inch, therefore HIRS teachings read on the claimed staple fiber mat.

The glass fibers may be any of the conventional glass fibers: C-glass fibers, S-glass fibers, and E-class fibers, among others. (Column 6, lines 63-65) The needled fabric may be sized or coated or filled or impregnated in a variety of manners. It teaches the use of polyethylene, acrylic and polyester coatings and also that it may be impregnated with a resin. (Column 11, lines 55-66)

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The reference teaches that the resulting fabrics have a wide variety of uses. The fabric may be in the form of a filter, a drapery material, heat protective clothing and sound absorbing coverings. (Column 11, lines 47-54)

While HEIRS teaches the use of an additional organic fiber layer 12 needed next to the fiberglass mat and opposite to the organic fiber layer 2 (Fig. 2), it fails to teach that the additional layer is coated.

NIEMINEN et al. discloses a flexible base web for a construction covering such as a floor or wall coverings, roofing felts, etc. (Column 1, lines 4-16) The reference teaches the use of a coating layer fixed to a base web either by applying a coating layer as a melted paste on top of it. The reference teaches the use of PVC (polyvinyl chloride) in the coating layer. (Column 6, lines 47-57) The base web of NIEMINEN et al. includes mineral fibers 10 and blend fibers 11 that include synthetic fibers such as polyester. (Column 2, lines 21-24 and Column 3, lines 4-8) The reference also teaches that the base web of their invention may be prepared so that blend fibers 11 (organic fibers) lie on the side opposite to that on which the coating layer 3 is. (Column 7, lines 9-19)

Since both, HEIRS and NIEMINEN et al. are directed to composite webs, the purpose disclosed by NIEMINEN et al. would have been recognized in the pertinent art of HEIRS.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the textile composite fabric of HEIRS and provide it with a coating layer with the motivation of forming a closed impervious top surface on the fabric as disclosed by NIEMINEN et al. (Column 2, lines 65-67).

4. Claims 6-8, 11-12 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over HEIRS and NIEMINEN et al. as applied to claim 1 above, and further in view of HEIDEL et al. (US 5,171,629).

HEIRS and NIEMINEN et al. fail to teach the use of filaments in the nonwoven and while the use of a binder to consolidate the fiberglass mat is discussed by HEIRS, the reference does not specifically suggest the use of a water insoluble binder such as a melamine resin or an urea resin binder.

HEIDEL et al. discloses a carrier web that consists of a glass fiber mat and a mat of synthetic fibers, which are needled together and are end-consolidated with a polymer-free low-formaldehyde melamine-formaldehyde precondensate. (Abstract) The reference teaches that the glass fiber mat contained in the carrier web according to the invention can be preconsolidated using polymer binders or melamine resins. (Column 2, lines 13-17) With regards to claims 6, 11 and 12, the reference also teaches the use of polyester fibers in the synthetic fiber nonwoven and that it can be built up from staple fibers or from continuous fibers. Random nonwovens of continuous fibers, in particular types which have undergone a certain pre-consolidation by a calendering process, such as, spun-bonded materials, are particularly preferred. (Column 2, lines 25-30 and lines 44-51)

To produce the carrier web the synthetic fiber nonwoven is needled to a glass fiber nonwoven, which is preconsolidated if appropriate, and is then impregnated by spraying, padding or dipping with an aqueous melamine-formaldehyde precondensate. (Column 3, lines 48-54) The reference teaches the use of their invention as a decoration carrier. (Column 4, line 4)

Since HEIDEL et al. is also directed composite webs, the purpose disclosed by HEIDEL would have been recognized in the pertinent art of HEIRS and NIEMINEN et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the textile composite fabric and further provide it with a melamine resin binder with the motivation of improving the burning properties of the material and providing it with high flexibility as disclosed by HEIDEL et al. (Column 3, lines 31-34).

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Norca L. Torres-Velazquez  
Examiner  
Art Unit 1771

February 20, 2004